

Approved by

Chairman of the Advisory Council

\_\_\_\_\_ Shadrikov V.D.

\_\_\_\_\_, 2013

## REPORT

**on the results of the independent assessment of the basic  
professional educational program of higher education**

**050100.62 - Pedagogical education.**

**Profile "Biology and Chemistry"**

**Federal State Autonomous Educational Institution of Higher  
Professional Education the North-East Federal University (NEFU)  
named after M.K. Ammosov**

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## Contents

QUALITY ASSURANCES OF EDUCATION .....	6
CRITERION 1. EDUCATIONAL PURPOSES OF THE PROGRAM.....	6
CRITERION 2. STRUCTURE AND THE PROGRAM CONTENTS .....	6
CRITERION 3. TEACHING AIDS .....	7
CRITERION 4. TECHNOLOGIES AND TECHNIQUES OF EDUCATIONAL ACTIVITY	9
CRITERION 5. HIGHER-EDUCATION TEACHING PERSONNEL.....	10
CRITERION 6. RESEARCH ACTIVITY AND REALISATION OF ITS RESULTS IN EDUCATIONAL PROCESS .....	11
CRITERION 7. EDUCATIONAL AND MATERIAL RESOURCES OF THE PROGRAM	12
CRITERION 8. MANAGEMENT STRUCTURE OF THE PROGRAM.....	12
CRITERION 9. PARTICIPATION OF EMPLOYERS IN PROGRAM REALIZATION .....	13
CRITERION 10. PARTICIPATION OF STUDENTS IN DEFINING OF THE CONTENT AND ORGANIZATION OF EDUCATIONAL PROCESS UNDER THE PROGRAM.....	14
CRITERION 11. STUDENT'S SERVICES AT PROGRAM LEVEL.....	14
CRITERION 12. ESTIMATION OF PREPARATION QUALITY OF THE ENTRANTS ...	16
CVs of EXPERTS .....	18

Basic educational program of a bachelor's degree realized by FSAEI "Northeast federal university n.a. M.K. Ammosov" in area of training 050100 - Pedagogical education\*, specializations of training 050102 - Biology and 050101 - Chemistry is realised by a department of methodic in teaching of biology, chemistry and geography of biological-geographical faculty since 2011/2012 academic years and represents the system of documents developed and confirmed by a higher educational institution according the requirements of a labour market on the basis of the Federal state educational standard in corresponding area of training of the higher professional education (FSES HPE), and also according to the recommended approximate educational program AEA in area 050100 - Pedagogical education.

Basic elements of realisation of FSES BEP 050100.62 - Pedagogical education\* are:

- Competency building approach to the organisation of educational results estimation;
- Module-rating organisation of educational courses;
- Representation of study time according to the European Credit Transfer System (ECTS);
- Increasing of extent and role of individual work of a student;
- Wide use of active and interactive forms of studies;
- Creation of assessment tools funds.

Basic educational program (BEP) of a bachelor degree in the area of training **050100.62 - Pedagogical education\***, specialization of training "**Biology**" and "**Chemistry**" and represents:

- Set of requirements, obligatory at realisation of the basic educational programs of a bachelor degree within the territory of the Russian Federation. Realisation of BEP is carried out on the basis of the licence № 1879, issued by the authorised federal enforcement authority and certificates on the state accreditation № 0676 of September, 29th, 2011.

- The system of documents developed and approved by the rector of NEFU n.a. M.K. Ammosov according to the recommendations of an approximate educational program and requirements of a labour market on the basis of the Federal state educational standard in the area of training of the higher professional education **050100.62 - Pedagogical education\***, specialization of training "**Biology**" and "**Chemistry**".

BEP includes:

- Requirements to results of development of the basic educational program;
- Calendar educational schedule
- The approximate curriculum;
- Approximate programs of disciplines and practices of all cycles in the form of summaries
- Working programs of training courses, subjects, disciplines (modules);
- Programs of educational and a practical training;
- The methodical materials providing realisation of corresponding educational technology.
- Other materials providing quality of preparation of the trained;

The basic educational program **050100.62 - Pedagogical area\* specializations: Biology and Chemistry** is directed on preparation of bachelors for following kinds of professional work: pedagogical, cultural-educational, research.

Requirements to the results of development of BEP are presented in the form of the list competences. Thus common cultural and professional competences are identical to all specializations, but it is supplemented by special competences, corresponding to each specialization of training.

Laboriousness of BEP of a bachelor degree 050100.62 - Pedagogical education\*, specialization of training "Biology" and "Chemistry" makes 300 test units for all period of training (5 years) according to the FSES HVE in the given area and includes all kinds of auditory and individual work of a student, practice and time which given for a quality control of BEP learning by a student.

BEP is learned simultaneously in two specializations of training area according to the governmental order of the Russian Federation of December, 30th, 2009 №1136.

Bachelor in area of training 050100.62 Pedagogical education\* should solve following professional problems according to professional kinds of activity:

*In the field of pedagogical activity:*

- Studying of possibilities, requirements, achievements of the trained in the spheres of education and designing on the basis of the received results of educational programs, disciplines and individual routes of training, education, development;
- Organisation of training and education in educational sphere with application of the technologies corresponding to the age peculiarities of the students and reflecting the specificity of fields of knowledge (according to realised specializations);
- Organisation of interaction with the public and educational organisations, children's collectives and parents for solving of problems in professional work;
- Usage of possibilities of the educational environment for provision of educational quality, including application of information technologies;
- Realisation of professional self-education and personal growth, designing of the further educational route and professional career;

*In the field of cultural-educational activity:*

Studying, forming and realisation of children's and adults' needs in cultural-educational activity;

Organisation of cultural space;

*In the field of research activity:*

Gathering, analysis, systematization and use of information on actual problems of science and education;

Working out of modern pedagogical technologies according to the features of educational process, problems of education, training and development of a person;

Carrying out the experiments for using of new forms of educational and pedagogic activity, analysis of results.

Concrete kinds of professional work for which a graduate usually prepares, defined the contents of its main educational program, developed by a higher educational institution together with interested employers.

**Profile educational program "Biology" and "Chemistry"** realised within the limits of area 050100.62 - Pedagogical education prepares graduates for organisation of training and education on subjects chemistry and biology on a full-time course of study. Graduate is prepared for gathering, analysis, systematization and applying of information on actual problems of science and education;

Place of the program realisation - biological-geographical faculty, chair of teaching methodic of biology, chemistry and geography, 677016, Yakutsk, 48, Kulakovsky St.

## QUALITY ASSURANCES OF EDUCATION

### CRITERION 1. EDUCATIONAL PURPOSES OF THE PROGRAM

Purpose of BEP in area 050100.62 - **Pedagogical education\*** is preparation of highly-skilled personnel for realisation of the updated content and modern technologies of education, overcoming of its backlog of inquiries of a society. Thereupon *the program purposes in area of training 050100 - Pedagogical education\**, specialization of training "**Biology**" and "**Chemistry**" are expressed clearly and accurately, coordinated with professional area, to the activity in which carried out a preparation of students and graduates.

Program purposes based on the results of BEP development and directed on the achievement of cultural, professional and special competences, which are reflected in the requirements to the results of BEP development in area 050100.62 - PEDAGOGICAL EDUCATION\*, preparation specialization "Biology and Chemistry".

Program purposes are co-ordinated with the general strategy of development of NEFU, and the specialization of the program and prospective results of training are that the program can compete in the market of regional educational services.

Educational purposes of BEP will be co-ordinated with the purposes and problems of professional work and inquiries of a labour market. It proves to be true by the demand of the Ministry of Education of Sakha Republic (Yakutia), as basic customer of preparation of teachers of biology and chemistry. So, for example, the demand the Ministry of Education of Sakha Republic (Yakutia) for 2013 on vacancy of teachers of biology and chemistry makes 63 vacancies, including the report of the coordination with the employer.

Curators at the first session tell students about the purpose of the program. Results of questioning of students and graduates show that in whole the program purposes correspond to educational requirements of students.

### CRITERION 2. STRUCTURE AND THE PROGRAM CONTENTS

Curriculum for preparation of bachelors 050100.62 - Pedagogical education, specialization biology and chemistry are developed on the basis of a model "PLANY" and confirmed of April, 4th, 2012, are calculated for 300 points of credit for 5 years; see Appendix 2.

Distribution of educational subjects by years of training, fixed in curriculum, is constructed in logic sequence. They are reflected in WPES and TMD. For example, in module "Chemistry" discipline "General and inorganic chemistry" is studied in 1 course for forming of fundamental knowledge according to the substantial specificity of a subject "Chemistry" at comprehensive school.

Along with modular technology of working out of curriculum in the plan are considered hours for IWC, IW and use of point-rating system of estimation of the training results, and also in curriculum there're disciplines correcting various levels of initial preparation of students. For example, "Basic sections of a school course of chemistry and a technique of studying"; "Calculated tasks in chemistry", etc.

The program structure promotes achievement of its purposes as in the core of the curriculum designing lies the model of achievement of the key competences.

The program structure corresponds to expectations of students and employers. In curriculum there are no programs of disciplines which are not connected with prospective results of training.

The confirmed programs for all educational subjects, practices, term papers (projects) and final qualifying works (FQW), included in the curriculum.

When working out of programs of educational subjects, practices, term papers (projects) and FQW the prospective results of training are considered. They are reflected in the developed funds of estimating tools which are directed for achievement of competences depending on a result level.

Content and extent of training courses in base disciplines are quite sufficient for studying of special disciplines as curriculum is designed on a basis of structurally-logic communications which are also reflected in WPES. Programs of special disciplines possess a practical orientation.

Programs of general professional and special disciplines necessarily include modern achievements of a science, technics, technology and management, including manufacture, in preparation area, and also in biological and chemical sciences (speciality).

The information making the content of education in separate disciplines and educational program as a whole, appeals to the domestic and foreign periodic scientific literature, monographies and to the network resources.

Tasks for externship are established according to the subjects of final qualifying works.

Final state certification includes preparation and defense of final qualifying work and preparation and carrying out of graduation examination.

Exam papers of graduation examination in a preparation area contain the questions connected with modern development of a science in the field of the studied program.

Subject area of FQW is defined by the inquiries of the industrial organisations and problems of the research tasks solved by teachers of issuing chair (examples)

### **CRITERION 3. TEACHING AIDS**

The basic literature used in educational process consists of textbooks, study guides, teaching aids, practical works. The basic educational and teaching literature provides all disciplines of the curriculum. In library fund there is available a sufficient number of copies of educational literature.

Updating of lists of the recommended basic and additional teaching literature is conducted through library of Northeast federal university at the expense of budgetary funds. The majority of textbooks and study guides is issued less than ten years ago. The basic disciplines of the curriculum are provided by the educational literature completely. On the disciplines there are textbooks and the study guides which have been issued by the central editions, and (or) recourse books, electronic educational resources (EER), Innovative teaching complexes (ITMD), developed by teachers of the faculty.

For many educational subjects there is additional informational software: electronic variants of study guides which are teaching-controlling programs, multimedia presentations, etc. Studying of special disciplines is focused on primary using by students of the scientific literature. In this case are used Internet resources, scientific publications (articles in collections, periodicals) which can be found in scientific libraries of NEFU, Institute of biological problems of cryolite zone (IBPC) of the Siberian Branch of the Russian Academy of Science, FSAI «Institute of Applied researches of the North (IARN), National library SR (Y) n.a. A.S. Pushkin.

For providing of students with the missing literature since 2004 there is a digitization of the necessary literature which is regularly uploaded to the library server of NEFU.

Teaching materials are stated consistently and logically. TM consist of five blocks: standard, theoretical, practical, diagnostic and methodical. In the working program, in the

course schedule, in lecture notes of discipline is shown the sequence of a statement of a teaching material.

On each block of TM there are sufficient number of generalisations and conclusions.

Generalisations and conclusions in WPES, TM are given in the form of control questions, questions for IW as a whole for discipline, and for each topic and in methodical instructions in TMD.

Control questions, tasks and test materials in teachers' TM are presented in the diagnostic block.

Illustrative material in teachers' TM is presented in theoretical, practical and methodical blocks. The illustrative material is presented in the form of presentations, schemes, schedules etc.

Additional literature for written works is available. The list is resulted in the working program of disciplines, and also in seminar lessons and for independent work of a student.

Independent work of the student is continuation of the class hours on disciplines, special time is given for reception of independent works of the student. Schedule of IW is put up at stands of lecture rooms where the discipline is delivered. (Statute about IW)

Content of WPES and TM of teachers corresponds to the content of training courses.

TM provides carrying out of different kinds of lessons: lectures, practical (seminar) lessons, laboratory researches, independent work of the student, educational-field, industrial, pedagogical practice.

Control and measuring materials for current, intermediate and final control, including materials developed independently by EI, allow to estimate degree of achievement by students of prospective results of training in prospective points (on system PRS) (statute about PRS).

In working programs and summaries of disciplines there is a section on the educational technologies, used in the course of discipline studying.

TM of teachers are used basically at class hours of a full-time course of study as there are no external and evening forms of study in area Pedagogical education, specialization Biology and Chemistry.

Set of teaching aids (TA), applied within the limits of the program forms integrated complex aimed at achievement by the students of prospective results of training within the limits of disciplines and the program as a whole. All blocks of teachers' TM, the basic and additional literature on discipline complement each other, and serve as a source for getting knowledge and abilities for the student.

EI provides access to domestic and foreign magazines through the electronic catalogue of site of scientific library (libr.s-vfu) to electronic-library systems (ELS): lanbook.com, biblioclub.ru, knigafond.ru to domestic scientific and foreign magazines in preparation area - Pedagogical education\* studying of which is recommended by the working programs of disciplines.

For proving of access to the Internet resource to the students in scientific library there is functioning an electronic reading room, in educational buildings - computer classes, computer tables. In the hall of educational building (BNSF) there are specialised computer tables with a free Internet access. In educational buildings there is "wi-fi" system.

At issuing department and at providing chairs there are cathedral library and pedagogical practice office. There are enough recourse books and recommendations for laboratory works, practical trainings for which lessons are delivered.



There are recourse books and recommendations on course and degree designing, practices.

In the NEFU library there is an electronic catalogue of books and a database on educational and teaching literature, uploaded to the server of AA NEFU.

Work on improvement of TA, used in educational process is held regularly. WPES, TM are discussed at methodical seminars, measures on updating and changes are taken. New data are reflected in record of changes WPES /TMD.

Students' opinion is considered at working out and actualization of TA, additional consultations are held for students on complicated disciplines, carried out, students' opinions are discussed at first on curator hours of a group, then at faculty meeting of DTMBCaG, brought up to developers of TMD and to chiefs of corresponding chairs where teachers of the given disciplines work by which the improvement of TM is required according to the students' opinion.

#### **CRITERION 4. TECHNOLOGIES AND TECHNIQUES OF EDUCATIONAL ACTIVITY**

Technologies used in educational process provide achievement of prospective results of training: development in students of personal qualities for full realization of their possibilities in the future professional work; formation of common cultural and general professional and special competences. Technologies of pragmatist, competence-based approaches, contextual training, also technology of traditional training with elements of modern technologies (game, ICT-TECHNOLOGIES, critical thinking, case-technology) allow to reach the training purposes - preparation of the modern expert, oriented on a labour market.

There are applied case-technology elements where students are offered problems-situations (Training technique, Creative laboratory of the teacher) from the real pedagogical reality.

For successful organization of SRS there are developed ITMD on many disciplines. Individual work of students with scientific adviser according to the schedule, public defense of academic year projects and the subsequent reflexion (application of pragmatist approach) promote qualitative performance of term papers.

For organization of practices the following technologies are applied: *technology of contextual training* where educational activity is as much as possible approached to reality. At 1-2 courses students during educational practice in field conditions work with live objects, study physiological features, structures, a way of life that promotes formation professional competences, raise motives of their professional development.

During a practical training at 3-4 courses students work as assistants of teachers in summer scientific camps: deliver lessons (theoretical and practical), supervise the research work of pupils, organise leisure of pupils.

In Autumn at the beginning of academic year students publicly reporting on practice, hand over the written report, prepare presentation for performance. Quality of the practical training is high: in 2011  $\Gamma$  - progress - 100 %, quality - 96 %; in 2012  $\Gamma$  - progress - 100 %; quality - 84,2 %.

During the teaching practice in elder years (3-5 courses) students form common cultural and professional competence by direct participation in educational institution activity.

Conditions for self-realization, self-expression, self-determination of the person of the student are created.

On some disciplines creative works are estimated: articles, description of a creative portrait of the teacher, preparation of didactic materials on a certain theme, performance at scientifically-practical conferences etc.

Quality of preparation of students is regulated and provided with the following standard-methodical documents and materials, confirmed by BS of NEFU:

- Statute about current and intermediate certification of students (SMK-OPD - 4.2.3.12.07.11);
- Statute about final state certification of graduates (SMK-OPD-4.2.3.-96-12 (2012)
- Statute about the organization of educational process in NEFU with use of system of test units (SMK-OPD-4.2.3-09-11. Version 1.0. It is confirmed and entered by the order № 423-ODES of 5/30/2011);
- Statute about the credit-modular organization of educational process in NEFU (SMK-OPD-4.2.3.-015-11. Version 1.0. Confirmed and entered by the order № 423-ODES of 5/30/2011);
- Statute about grade-rating system in NEFU (SMK-OPD-4.2.3. - 27.05.11);
- Statute about independent work of students NEFU (SMK-OPD-4.2.3.-016-11. Version 1.0. Confirmed and entered by the order № 423-ODES of 5/30/2011);
- Duty regulations of workers of NEFU providing educational process at university;
- General requirements to the organization and carrying out of laboratory works and a practical training (SMK-STU-4.21-001-11 (Version 1.0) 04.06.11);
- Statute about carrying out of competition of Teaching council of NEFU «Best educational lesson with use of active and interactive forms of teaching» (2012), etc.

## **CRITERION 5. HIGHER-EDUCATION TEACHING PERSONNEL**

Realization of educational program is allowed for teachers, whose competence and qualification correspond to the purposes of the program and are sufficient for training of students. Requirements to qualification and competence of the teachers involved in realization of the program are developed and confirmed according to Charter of NEFU, JEC and duty regulations of NEFU workers. There are developed standard documents regulating selection, sampling, certification and improvement of professional skill of teachers. And also standards and the regulations defining study work of teachers. Educational and scientific activity of the teacher is directed at forming in a student of development potential on the basis of development of its creative abilities, knowledge and skills (competences).

At estimation of subject competence of the teacher there are considered: conformity of actual results of training to prospective results of training, level of methodical competence, experience of practical work in subject domain.

Professors and the teachers realizing the program, are invited for reading of special courses in other EI (Institute of advancement of education and skill improvement of Ministry of Education of Sakha Republic (Y);

In educational process there are involved experts- practitioners as external part-time workers for reading of special courses, carrying out of seminars.

Teachers realising training courses with application of e-learning, regularly raise their qualification in area of e-learning according to the Statutes of improvement of professional

skill of higher-education teaching personnel of NEFU. In high school there is realized the policy of preparation of “personnel reserve” (Statutes about personnel reserve NEFU).

## **CRITERION 6. RESEARCH ACTIVITY AND REALISATION OF ITS RESULTS IN EDUCATIONAL PROCESS**

There is constant research activity (RA) in the field of the program, carried out by teachers and the managing chairs realising the program (Jakovleva A.V., Sofronov R. P, Basharin K.G. - external financing – Grant of Committee of SR (Y) on family and childhood affairs for issuing a study guide "Prevention of alcoholism, tobacco smoking and drug addiction. Section «Person and health», 8 class", 2009 - teachers - 60 000 rbl. at the expense of external financing).

SR is carried out by the students and post-graduate students, for example. Nohsorov V.V., BH-06. "Research of fatty-acid structure of the plants growing on cryolite zone" - the Grant of rector of NEFU (2011), Yefimova M.P. "Regional approach to studying of chemistry of metals of collateral subgroups in chemistry course (on an example of chrome, manganese and iron)" - BH-06 (2011) - the Grant of rector of NEFU, Fedorova S.A., BH-08. "Formation and development of methods of cerebation in the course of chemistry training" - Grant of rector of NEFU (2012).

Results of RA are used in educational process, for example, results of researches of students are applied in modernisation of lectures and a practical training on disciplines "Physiology of plants", "Technique of teaching of chemistry and biology", "Development and reinforcement of practical skills in chemistry and biology", "Scientific bases of a school subject of chemistry", "Specialization training in chemistry", etc.

Teachers and students take part in the international scientifically-practical conferences, for example, Ed.D., department chair DTMBCaG professor K.E.Egorova was invited as one of the basic lecturers to the International conference "Fundamental and applied problems of modern chemistry" (Astrakhan, 2008, 2009, 2011). Results of researches are inculcated into practice of training of schools and additional education establishments:

- By introduction of new elective courses (for example, "Chemistry of metals");
- Study guides, for example, a) Ivanova M. L., Andreeva M.P. Social projects in chemistry: the recourse book for the teacher. - Suntar, 2009.- p.68; b) Jakovleva A.V., Sofronov R.P., Basharin K.G. Prevention of alcoholism, tobacco smoking and a drug addiction. Section «Person and health». 8 class - Yakutsk: Publishing house JAGU, 2009. – p. 124; c) Gogoleva P.A, Zaharova A.G., Krivoshapkina O.M. School competition on ecology - Yakutsk: Publishing house JAGU, 2005., Etc.
- Introduction of new, experimental scientifically-methodical approaches and principles to the organisation of training and research work of pupils in summer ecological camp (Sofronov R.P., Pavlov I.I.);
- Carrying out of joint scientifically-practical conferences at contractual schools (Hatystyrsky SGS, 2002; Magarassky SGS, 2005; Tuora-Kjuelsky SGS, 2006, etc.);
- Guidance of scientific work of contractual schools;
- Guidance of the edition of collections of the materials prepared by teachers of schools, etc.

## **CRITERION 7. EDUCATIONAL AND MATERIAL RESOURCES OF THE PROGRAM**

The budget necessary for realisation of the program is formed at the expense of the federal budget and at the expense of off-budget sources. Financing of realisation of the basic educational programs is carried out at extent not less of established specifications of financing of a higher educational institution. Allocated educational and material resources for the organisation of educational process and achievement of prospective results of training are sufficient. There is a control of budget execution and productivity of use of the allocated resources during the program realisation. Annually on site of NEFU the expenditure report of means allocated by the Ministry of Education and Science is published. Educational process is provided by support personnel that is adequate to the needs of the program according to the staff list and duty regulations. Financial and material resources of the program allow to get, serve and maintain the material base and the equipment necessary for realisation of BEP, according to the established norms. Scientific library of NEFU is one of the largest book-depositories of the Republic. In its funds there is available more than 1,3 million units of the literature, in different languages of the world. In library there is a possibility to order the missing literature through interlibrary funds, besides, there is a whole set of the signed electronic libraries, such as ELS "Lan", ELS "University library online" etc. Educational laboratories are provided with all necessary equipment and consumable items, there are regularly formed the demands for acquisition of consumable items in Department of life support of NEFU. For formation of professional competences according to the prospective results of training in area 050100 - Pedagogical education there are used stationary and field bases of practices:

- Training ground "Botanical garden of YSU" (Yakutsk);
- Field monitoring base "Byalan" (Namsky ulus),
- Field hospitals in Hatyryk settlement of Namsky ulus and in vicinities of Pokrovka settlement of Amginsky ulus;
- Base schools of biological-geographical faculty in Yakutsk and at schools of the Republic for industrial (pedagogical) apprenticeship.

Bases of educational and practical training are equipped with the modern equipment and devices, specialised training grounds in the extent necessary for forming of professional competences according to the planned results of training.

For carrying out of fundamental and applied scientific researches there were founded the laboratory of research activity of pupils and youth in chemistry of BGF. The purpose of activity is practically-focused preparation of teachers of chemistry and biology on the organisation and carrying out of research works with pupils in the conditions of full realisation of possibility of a modern office of chemistry and biology, rendering assistance to teachers and pupils on realisation of the chemical analysis, working out of technological devices and perfection of technologies of reception of products and materials; rendering of chemical analyses by request, realisation of research work on working out of patents and a know-how. The demand for equipment acquisition for the sum more than 2 million roubles is issued.

There is a confirmed plan for development and perfection of educational and material resources of the program with a view of supporting and improvement of quality of education.

## **CRITERION 8. MANAGEMENT STRUCTURE OF THE PROGRAM**

The package of the documents regulating planning, organisation and management of realisation process and program development includes: Charter of NEFU, the Order of the

Ministry of Education and Science of the Russian Federation of January, 17th, 2011 №46 “About the statement and conducting in action of the federal state educational standard of the higher professional education in area of training 050100 Pedagogical education (qualification (degree)"bachelor") (with changes of May, 31st, 2011). Chair staff list for 2012-2013, Methodical instructions «About an order of working out, registration and approval of duty regulations”, confirmed by the order № 499 of December, 25th, 2007 Organizational structure of program management corresponds to the shown requirements. SMK-OPD-4.2.3-90-12 «Statute about working out and the approval of the basic educational program of the higher professional education», version 1.0., confirmed by the order №59-OD of January, 28th, 2013.

Control and tracing of conformity of teachers’ activity is held according to the “Order of the Ministry of Education and Science of the Russian Federation of 8/6/2009 №284 “About the Statute approval about an order of carrying out of the personnel certification, scientific and pedagogical workers occupying positions”, also to criteria “Statutes about an order of carrying out of the personnel certification, scientific and pedagogical workers occupying positions at the Northeast federal university, confirmed by rector Mihajlova E.I. of December, 13th, 2010.

Pedagogical activity of teachers is stimulated according to the “Statute about the awards applied in NEFU SMK-OPD-4.2.3-52-12, confirmed by the order №171-OD of February, 29th, 2012.

Except surcharges for SR and TCT there are Order №66 OD of 1/31/2012 about an order of appointment of single compensation to supervisors of studies of post-graduate students, scientific advisers doctoral candidates, defended candidate and theses for a doctor's degree in time.

## **CRITERION 9. PARTICIPATION OF EMPLOYERS IN PROGRAM REALIZATION**

Policy of EI in the sphere of improvement of education quality encourages participation of employers. Employers deliver lectures, master classes, promote in the organisation and carrying out of pedagogical and educational practices of students. Practical trainings are spent on the basis of long-term contracts between BGF NEFU of M.K.Ammosov and base schools of Sakha Republic (Yakutia): Tuora-Kjuelsky SGS of Tattinsky ulus, the contract №40 of 6/1/2010, Magarassky SGS Gorny ulus, contract №2 of 1/1/2011, Elgjajsky SGS of Suntarsky ulus, contract №46 of 1/10/2013, Pokrovskaya SGS №2 of Hangalassky ulus, contract №29 of 9/1/2013, Olekminsky education department of Olekminsky area, contract №1 of 1/1/2011, SGS №7, 14, 17, 31 of Yakutsk. Contracts №52, 53, 54, 55 of 9/1/2010.

In working out of subjects course and theses of students of 3, 4 and 5 courses take active part teachers of biology and chemistry of base and other educational institutions where the organisation and carrying out of pedagogical experiment, it is confirmed by the report’s № 8 extracts of faculty meetings CTTBC and G of BGF of February, 18th 2011, №19 of May, 11th, 2012, №12 of January, 31st, 2013 about approval of topics and the permission to defense of theses of students of 5 courses on a speciality “050102.65 Biology” with an additional speciality “050101.65 Chemistry”.

Improvement of actual results of training is visible at a part of the trainings delivered by teachers of base contractual MEI SGS №7, 14, 17, 31 of Yakutsk in pedagogical practices of students of 3, 4 and 5 courses, they make 10-15 %. For example, as a result of educational trainings of employers in the course of pedagogical and educational practices of students on the basis of contractual schools RS (Y) after trainings there are spent tentative studies: lessons, laboratory and practical works in biology with 6 till 11 classes and in chemistry with

8 till 11 classes in base and specialization classes. As it seen from reporting documents given by students: diaries of pedagogical and practical trainings and analyses of studiesm, trainings are spent for perfection of professional skills of students.

There is a documentary system of consideration of references and complaints of employers at ME PC (Y) level. It promotes improvement not only of actual results of training of the future teachers of biology and chemistry, but also to increase the quality assurances of education. Feedback with collectives of schools is a part of policy of EI on internal content of quality and quality assurances of education and is carried out on a constant basis.

#### **CRITERION 10. PARTICIPATION OF STUDENTS IN DEFINING OF THE CONTENT AND ORGANIZATION OF EDUCATIONAL PROCESS UNDER THE PROGRAM**

At CTTBC and G chair there are student's scientific circle on a problem of biological, chemical, ecological education. The order № 2.1. Members of a student's scientific circle (biological, chemical, ecological education) have the right to define the plan of work of a student's scientific circle. Annually there are spent sociological polls of students during which decided the questions defining a level of satisfaction of students in definition of the content of curriculums. There is a system of encouragement of students for participation in definition of the content of the program and organisation of educational process: various competitions – “Best probationer of BGF”, university competition "methodologist" which allow to improve the content of the program and the organisation of educational process. Noting of requirements is carried out during the polls. Students have the right to choose independently days and time of IW. Students are involved in discussion of reports on self-inspection, at curator's hour in each group.

#### **CRITERION 11. STUDENT'S SERVICES AT PROGRAM LEVEL**

In the Internet at <http://www.s-vfu.ru/> site students are given an open access to electronic scientific library of NEFU and web chair where students can watch and listen to interesting assembly lectures of best scientists of NEFU and other Russian high schools.

At biological-geographical faculty as of 11.02.2013 there are 37 students are trained on a commercial basis. These students have a possibility to pay training by credit, and also to use for training the educational credit received on favourable terms in partner-bank (Sberbank). Children of employees of NEFU who worked at university more than 15 years under the university Collective agreement are given the possibility to pay training at the expense of means of NEFU. As of 10.02.2013r at BGF at the expense of means of NEFU 2 students are trained (Safonova V.A., BH-11, Ushnitsky I.M., PP-11). On the basis of Charter of NEFU and Statute about current and intermediate certification of students of NEFU (see site of NEFU, sections "Documents" and “Administrative divisions”), the students who have shown good results in results in examinations, activity of scientific and public life of faculty and university have possibility to change paid training for budgetary. While transferring at a planned place by the commission on transfers and restoration of NEFU there is also considered a social and financial position of the student. As of 10.02.2013 in BGF 7 students are transferred from paid to a budgetary position. At excellent study, achievements in science, sports and art creativity in addition to the basic federal grant there are appointed nominal grants as support of talented student's youth organised by various funds and organisations. For example, grant of A.E.Kulakovsky - 3, grant of A.E.Mordinov - 1, grant of G.R.Basharin - 1, grant of V.A.Protodjakonov - 1, grant of P.H.Starovatov-2, grant of S.P.Sidorova-2, grant of P.A.Petrov-2, grant of I.N.Barahov-2, grant of A.I.Kuzmin, the grant of F.G.Safronov-1, State grant of SR (Y) - 7.

Since 2011 NEFU for the best students arranges free Christmas vacation in the central cities of Russia (Moscow, St.-Petersburg). By the results of 2012 150 students have received the monetary award “Christmas vacation in Moscow and St.-Petersburg” for successful study, in scientific, sports, public and creative activity. The program of Christmas vacation includes the extensive cultural program including acquaintance with Moscow and St.-Petersburg. The main event of vacation is visiting by students of NEFU together with the pro-rector on interaction with federal structures Alexey Tomtosov of a special economic zone of "Skolkovo".

The students of NEFU with personal statements and in case of available means of FSIO and corresponding documents are paid travel privilege for aviation and motor transport. For 2012 20 students of BGF got the travel privilege. In NEFU there is a system of organisation of a subsidized meals for students from socially-vulnerable segments, there is also a half paid voucher for a vacation center "Smena".

Today in NEFU there is great attention paid for productive leisure, physical development and for improvement of social conditions of students. All these actions are financed from means of NEFU. So, for the purpose of development of physical training and sports, propagation of a healthy way of life the federal university has got 180 units of training equipment. In yards' territory of Studying-laboratory and Main educational buildings, at stadium "Yunost" and in yards of hostels № 7-2, 7-1, 18, 20, 66-a, 66-b there are established sports training equipment.

In a hostel 17 (2) in 2012 a capital repairs has been done, round the building there are power saving sensors are installed, they are able to react to movement and automatically switched off, when the students leave their room. Besides, with a view of safety, on each floor in corridors and halls observation cameras are built in. On the territory of student campus there is a wireless Internet - wi-fi.

At university there are created all necessary conditions for students-invalids (hearing aids, ramps. Students with the limited abilities have flexible individual schedule of visiting of lecture lessons, competitions, and seminars).

Students are able to study additional programs and pass their training abroad. Annually the most scientifically-active part of students passes training courses in other countries, participating in the exchange program "Sever-severu" of University of Arctic regions. Training are held in Sweden, Norway, Finland, Iceland, etc. Northeast federal university has contracts (agreements): with faculty of sciences about Environment of the Earth of University of Hokkaido (Japan) for development of the academic and educational exchanges and cooperation between two universities; with University Lini (China), Pusansky university (Korea) for development of exchange programs and for working out of joint programs on the organisation of students practices. The sphere of its activity includes Magadan area, Chukotka that expands possibilities of passing practices.

Students have access to 27 courses to increase the level of foreign language (English, French, German, Turkish and Chinese languages). Courses are conducted by teachers of chair of foreign languages. Students are suggested courses for beginners of natural specialities and areas, communicative English and the practical English grammar, English language in sphere of professional communications, business English for 3-5 courses, etc.

The health services are organised in polyclinic № 5, polyclinic of NEFU (66 building) and in sanatorium "Smena". The sanatorium is located in the centre of student campus on the basis of a student's hostel to the address: Yakutsk, 17, Kalandarashvili St., hostel 6, blocks A and B. Near there are available pool, sports complex, computer centre, cultural centre “Sergeljahskye ognj”, shops, drugstore, mail, etc.

Meals are arranged both in the buffet tables and in refectories of educational buildings and at food production facility № 5. The food production facility "Sergeleeh" includes the whole complex of public catering facilities - refectories of "Sergeleeh", institute of technology; cafe "Sergeleeh", at hostels № 6 block V № 7\1 № 8\1; buffets MTB, of medical and road institute, and also there are confectionery, meat-fish, vegetable, flour departments. Students of BGF have meals in a refectories and buffets of CFNS.

At biological-geographical faculty there are 3 computer classes intended for preparation of students to lessons with use of network resources of NEFU and informational Internet resources.

Since April, 1st, 2000 in NEFU there are Center of the Psychological help to students, where individual consultations are given, and psychological diagnostics is carried out, talks and seminars are delivered on different topics: Didactic adaptation (to training conditions in high school); Self-organising of the student; Stress removal before examinations, etc.; socially-psychological trainings are carried out.

At university there is a purposeful activity on support of small business, starting of new workplaces and help to students-businessmen. Within the limits of these actions annually in high school there are Days of student's business, seminars-trainings for the students, planning to open their business, competition of business projects among students-businessmen. At the initiative of the Center of career and students-businessmen of high school there were founded a public organisation "Council of students-businessmen of Sakha Republic (Yakutia)" which founders are 17 students-heads of the enterprises. The university together with Council opens a student's business incubator.

## **CRITERION 12. ESTIMATION OF PREPARATION QUALITY OF THE ENTRANTS**

Reception rules in NEFU establish the lower limits of results of Unified State Examination for the entrants entering budgetary places. In 2012 the lower limits in biology - 42 points, in Russian language and social science - 40 points that is above the lower limits established by Federal Education and Science Supervision Agency in biology, Russian-36, social science – 39.

According to the reception rules in NEFU the winners and prize-winners of the final stage of the All-Russian Competition of schoolchildren (subject), winners of workshop conference «Step to the future» enter without examinations. Winners, prize-winners of the List of the Competition of schoolchildren (confirmed by the order of ME of the Russian Federation of 7.11.2011 №2598) are given privileges - a victory in biology, chemistry and to social science is estimated in 100 points.

Winners, prize-winners of NECS, graduates of faculty of pre-university education, specialization classes (a natural-science, physical and mathematical specialization), base schools with which there are long-term contracts, have advantage at equality of points.

In 2012 the lowest passing score of the enlisted entrants on budgetary places is -169; Unified State Examination grade point average in sum of results of Unified State Examination in 3 subjects - 58,2.

Professionally oriented work at faculty and chair will be organised on the basis of the plan of professionally oriented work, confirmed by rector of NEFU and Concepts of vocational counselling of NEFU for 2011-2019 (№ 238-ODES of 3/23/2011).

Chairs participate in all-university and faculty professionally oriented events:

*Offsite "Days of university"* - in 2011-2012 there were 20 offsite meetings with the general coverage of 2788 pupils of schools. In frameworks of professionally oriented offsite



meetings with representatives of administrations, education departments, schools, with the public, parents, entrants, graduates, there are held courses on preparation for Unified State Examination and seminars for teachers, consultations of psychologists, there are signed contracts on cooperation.

***“Doors Open Days at BGF”*** - spent 2012.28.03, all chairs took an active hand: dean Nikolaev A.N., Mihajlova N.V., Andreeva M.P, responsible for professional orientation work at chair (Lazareva P.V., Gogolev P.V., Sleptsova N.P.). Annually take part more than 60 pupils and parents.


***“Week of FPUEPO NEFU”*** - spent in October, 2012 for pupils from 5-11 classes of educational institutions of Yakutsk. In various events of a week have taken part more than 8 000 of schoolchildren from 35 schools, about 300 parents, 150 teachers of schools and 250 teachers of university, and other events.

At faculty it is constantly conducted advertising - informational work: issued booklets about faculty, areas of preparation with the general circulation more than 1 000 copies. In the university newspaper “Our university” there appeared heading “Compass of the Entrant”. According to the schedule there were published information about reception campaign of faculty, preparation areas, and also materials on preparation for Unified State Examination in biology, chemistry; articles: “How to be prepared for Unified State Examination in chemistry (Andreeva M. P., Nahova N.A.,” How to be prepared for Unified State Examination in biology” (Jakovleva A.V., Sofronov R.P.).


HETP of chair annually conducts consultations, lessons for potential entrants. First of all for pupils of contractual base schools, internally-correspondence school works within an academic year, teachers and students work in summer scientific camps, supervise research work of schoolchildren.

## CVs of EXPERTS

### Expert's name: Nikolay V. Shtanov

Work place, position	"Bryansk State University", Head of the Instruction Department 
Academic degree, academic title	Ph.D. in Pedagogy, Associate Professor
Deserved titles, degree	Honorary Worker of Higher Professional Education
Education	Higher
Professional achievements	Mora than 150 scientific and educational methodical works
Area of expertise	Scientific and methodological support of educational process in high education institution
Practical experience in the direction of the program, subject to examination	15 years

### Expert's name: Sergey N. Shtanov

Work place, position	Director of Nizhny Novgorod Automotive College 
Academic degree, academic title	Ph.D. in Pedagogy
Deserved titles, degree	-
Education	Higher
Professional achievements	Forming an effective model of relations with business partners
Area of expertise	Management and development of the educational institution
Practical experience in the direction of the program, subject to examination	Head of educational institution as a potential employer for the teaching staff - graduates in the direction of program of higher education 050100.62- "Teacher Education"

**Expert's name: Karl Donert**

Work place, position	<p>International expert, Professor at the Salzburg University named after Paris Lodron, Austria, Director of the European Center for Quality, President of the European Association of Geographers (EUROGEO) (Liverpool, UK).</p>  A portrait photograph of Karl Donert, a middle-aged man with short, light-colored hair, smiling. He is wearing a dark suit jacket, a white dress shirt, and a blue patterned tie.
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